REMARKS

Entry of the Amendment and reconsideration of the claims in view of the following Remarks is respectfully requested.

Claim 30 has been amended. Support for the amendment can be found throughout the specification, including page 22, line 15 to page 23, line 12; Figure 4; and page 97, line 14 to page 98, line 7. Claim 43 has been amended and the support for the amendment is found throughout the specification. Claim 48 was also amended to correct an obvious typographical error.

Claims 50-55 have been added. Applicants submit the newly presented claims are supported throughout the specification including at page 11, line 3; page 13, line 27; page 13, lines 3-27; and page 22, line 15 to page 23, line 12; and page 97, line 10 to page 98, line 4.

Therefore, claims 30-55 are pending in the application.

Objections

Specification

The Examiner maintains the objection to the specification because the newly provided pages of the tables have margins that are still too small to accommodate the hole punching. Applicants submit herein replacement tables 6.1-6.15 having a larger top margin. Withdrawal of the objection is requested.

Claim Objections

Claim 48 was objected to for a typographical error where "C_H3 domain" is incorrectly set forth as "C,3 domain." Claim 48 as amended corrects this error. Withdrawal of the objection is requested.

Claim Objections/Rejection Withdrawn

Applicants acknowledge the withdrawal of the objection to the declaration. Applicants acknowledge the withdrawal of the rejection of claims 30-49 under 35 U.S.C. § 112, second paragraph. Applicants acknowledge the withdrawal of the 35 U.S.C. § 102(b) rejection of claims 30-32, 37, 40 and 42 in view of Carter. Applicants further acknowledge the withdrawal of the rejection of claims 30, 31, 37, 40, 41 and 42 under 35 U.S.C. § 102(b) in view of Tso. Applicants acknowledge the withdrawal of the 35 U.S.C. § 102(e) rejection of claims 30-42 in

view of Carter. Applicants also acknowledge the withdrawal of the rejection of claims 30-49 under 35 U.S.C. § 103(a) in view of Vaughan, Bosslet and the Carter references.

35 U.S.C. 112, first paragraph

Enablement

Claims 30-42 stand rejected under 35 U.S.C. 112, first paragraph, for an alleged lack of enablement. The Examiner contends that the specification fails to teach how to make bispecific antibodies where the light chain is identical. The Examiner also contends that the specification fails to teach that altering the light chain will still allow for a bispecific antibody that can bind to antigen. The Examiner asserts that changes in antibody binding domain especially in CDRs may result in a loss of affinity. Applicants respectfully traverse this rejection.

Applicants contend that one of skill in the art reading the specification would be able to make the multispecific antibodies as claimed by Applicants without undue experimentation. There are many factors to be considered in an analysis of enablement, including breadth of the claims, nature of the invention, the state of the prior art, the level of ordinary skill, level of predictability in the art, the amount of direction provided by the inventor and the existence of working examples, and the quantity of experimentation. MPEP 2164.01(a) citing *In Re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). Only a reasonable correlation between the specification and the scope of enablement is required.

Applicants submit that they have described how to make the claimed multispecific antibodies. Applicants have described in detail the preparation of polypeptides with multimerization domains at pages 47-56, and expression of heteromultimers having common light chains at pages 56, line 11, to page 72, line 15. The Examples provided detailed instructions for forming multimerization domains (Examples 1, 2 and 3) and identification of light chain sequences that have at least 98% and up to 100% sequence identity (Example 4, Table 6). Several pairwise comparison of antibodies with different specificities were made and a number of common light chains were found as described at pages 96, line 20, to page 97, line 10. Moreover, alignments of light chain sequences having at least 98% sequence identity were described and exemplified at page 97, line 10, to page 98, line 3. Applicants have described how to select light chains that are identical and/or to alter light chains that have at least 98% sequence identity. (See figure 4 and pages 97-98) The Examiner's attention is drawn to Example 4, Section

C, where Applicants exemplify the construction, purification, and characterization of an anti-Ob-R/Anti-HER3 antibody of the invention. Therefore, Applicants submit the disclosure exemplifies the generation of an antibody having light chains that have at least 98% or even 100% sequence identity. Applicants also contend that they have taught how to alter or select the light chain so that it can retain antigen binding.

Applicants respectfully submit that the Rudikoff reference concerning the unpredictability of antibody engineering is not relevant for evaluating enablement of this application, because Rudikoff was published in 1982, a full 15 years before the May 1997 priority date of the present application. Applicants submit that during the intervening period, the level of knowledge and predictability in the art of antibody engineering has increased considerably, such that one of skill in the art at the time of filing would readily be able to make and use the claimed invention.

Applicants submit that the level of skill and knowledge in the art regarding antibody structure is now well developed. Several molecular modeling programs can be used to predict and identify which amino acid positions can be varied in antibody structure. In addition, the considerable past and present success in the field of antibody engineering involving the humanization of antibodies clearly shows that CDR regions can be imported from one species into the framework region of another species that may greatly differ in amino acid sequence, and yet still maintain antibody specificity. Therefore, Applicants submit that it is well known in the art that antibody variable domains can be significantly modified and still maintain structure and function.

Furthermore, Applicants have provided guidance in how to determine which amino acid sequences may be varied to form a common light chain that nevertheless maintains the ability to bind to the heavy chain, and form binding domains still capable of binding antigen. The Examiner's attention is called to Example 4 and Figure 4. Here, Applicants have directed one of skill in the art to align the light chain variable domain sequences of paired light chains having at least 98% sequence identity, and then to identify those amino acid residues that differ and could be altered. In Figure 4, Applicants have explicitly described the alignment of antibody variable light chain sequences, and have identified amino acid positions that differ, and could be altered yet still maintain antigen binding activity.

As stated above, the present application discloses several light chains suitable for use in the present invention whose amino acid sequence identities are not identical. See Appendix/Table 6, Figure 4, and Figure 8. Applicants have also described a method for identifying light chain sequences that have at least 98% sequence identity between antibodies of different specificities. (See, for example, Example 4, page 96, line 1 to page 98, line 7). These light chains are from antibodies that are selected for binding to the specific antigen. The selected light chains are already known to bind the antigen. Applicants further disclose that in some embodiments, the light chains were aligned and the amino acid residues that differ between the sequences were identified and could be altered (page 97, lines 27-30). Furthermore, Applicants have disclosed a method of testing the binding specificity of the antibodies of the invention (page 101, line 19 to page 102, lines 15).

Applicants submit it would be routine experimentation for one of skill in the art using the methods as described in the invention to determine if the bispecific antibody with a first or second light chain having at least 98% sequence identity would bind to both of the antigens, or to retain the ability to pair with either heavy chain. The need for routine experimentation to practice Applicants' invention as claimed does not render the claims nonenabled. Indeed, the fact that even complex experimentation must occur to make and use the disclosed invention does not necessarily make it undue, if the art typically engages in such experimentation. MPEP 2164.01.

For at least the foregoing reasons, Applicants respectfully submit that the present disclosure provides substantial guidance in making and using the full scope of the claimed invention. Applicants therefore respectfully request withdrawal of the 35 U.S.C. § 112, first paragraph rejection.

Written Description

Claims 30-42 stand rejected under 35 U.S.C. 112, first paragraph, because the disclosure allegedly fails to describe the claimed genus of compounds. The Examiner contends that the specification only provides examples of bispecific antibodies where the light chains are identical, such that claims to light chains that are not identical are not supported and represent new matter.

The fundamental factual inquiry in whether the claims are sufficiently described "is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed." MPEP 2163

I.B. The specification need not describe *ipsis verbis* what is recited in the claims; rather, the claim limitations may be supported in the specification through express, implicit, or inherent disclosure. *Id.* Furthermore, Applicants need not disclose in detail what is conventional or well known to one of ordinary skill in the art. MPEP II 3(a). "If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met." *Id.*

Claims 30-42 recite methods of preparing multispecific antibodies comprising a first polypeptide and at least one additional polypeptide, wherein the light chains of the first and additional polypeptides each have three CDR regions, have at least 98% sequence identity, and only differ from one another at amino acid positions outside of the CDR regions. Applicants submit that one of skill in the art at the time of filing would have clearly understood from reading the specification that Applicants were in possession of these claimed methods at the time of filing.

Applicants' invention is directed to methods of generating multispecific antibodies comprising binding domains for more than one antigen. Applicants have explicitly disclosed that paired light chains having at least 98% sequence identity can very likely be found for any V_L comparison (page 97, lines 6-9). Applicants have disclosed the panning of a large human scFv antibody library for antibodies specific for eleven different antigens that represent considerable variation in structure and function (page 95, line 27 through page 96 line 9). After comparing the V_L sequences of the antibodies, Applicants discovered at least one, and often more than one, light chains having at least 98 % sequence identity for most pair wise comparisons (page 96, line 21 through page 97, line 26, Table 6, Appendix, Figure 4 and Figure 8). Based upon these results, it is likely that light chains that have at least 98% sequence identity can be found for any V_L comparison. In fact, the majority of pairwise comparisons identified light chains having at least 98% sequence identity. These light chains were selected for binding to the specific antigen and, thus, could bind to the specific antigen of choice.

Applicants have also shown that aligning the identified light chain sequences shows where changes outside of the CDR regions can be made. Indeed, Applicants disclose that light chains having 98-99% sequence identity with the light chain of a prospective scFv can even be substituted with the paired light chain in an antibody and retain binding specificity (page 97, line

30 through page 98, line 33). One of skill in the art would readily apprehend that the specification discloses that light chains having at least 98% identity are suitable for use in the formation of a multispecific antibody.

Therefore, Applicants submit that one of skill in the art at the time of filing would readily recognize that Applicants were in possession of methods of preparing multispecific antibodies comprising a first polypeptide and at least one additional polypeptide, wherein the light chains of the first and additional polypeptides have at least 98% sequence identity.

The Examiner contends, however, that the claimed antibodies are not adequately described in the specification because the specification does not provide working examples of antibodies having light chains that are not identical. Applicants respectfully disagree that working examples are required.

Applicants respectfully submit that, for purposes of determining the adequacy of written description, the patent laws do not require Applicants to provide working examples representative of the full scope of the invention. A working example is merely one manner in which Applicants may show possession of an invention. MPEP 2163 II.A 3(a). As stated above, the fundamental, relevant inquiry is whether the specification conveys with reasonable clarity to one of skill in the art that Applicants were in possession of the claimed invention.

Since Applicants disclose light chains having at least 98% sequence identity and in some embodiments, whose amino acid residues vary outside of their CDRs, and teach that such light chains may be substituted for each other and retain binding specificity in a multispecific antibody, Applicants were clearly in possession of the invention as claimed at the time of filing. Applicants submit that working examples are not required by the written description guidelines, and that, furthermore, Applicants need not disclose in *ipsis verbis* every limitation of the claims. Applicants respectfully submit that claims 30-42 are amply described in the specification for at least the foregoing reasons. Furthermore, since the claims as amended are fully described by the specification, Applicants submit that no new matter was added by the amendments. Withdrawal of the rejection is requested.

35 U.S.C. § 103

Claims 43-49 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ridgway, Carter (U.S. Pat. No. 5,807,706), or Carter (WO 96/27011), in view of Kostelney and further in

view of Vaughan. The Examiner contends that Ridgway, Carter (U.S.) or Carter (WO) teach methods of engineering multimerization domains onto polypeptides for making bispecific antibodies. The Examiner further asserts that Kostelney teaches a method of making bispecific antibodies, and teaches a method for improved heterodimerization using leucine zippers. The Examiner further states that Kostelney teaches that unwanted proteins may still be formed because of mismatching of different L chains and H chains. The Examiner then contends that Vaughn teaches examples of scFvs where identical light chains are paired with two different heavy chains to bind to two different antigens. The Examiner concludes it would be obvious to alter the methods of Ridgway, Carter (U.S.) or Carter (WO) to include finding a light chain that could be used for each of the binding domains. The Examiner asserts that one of skill in the art would be motivated to use the methods of Vaughn to find such chains because of the problem taught by Kostelney that unwanted antibody products may be formed due to mismatching of light and heavy chains. Applicants respectfully traverse this rejection.

In order to establish a prima facie case of obviousness, three basic criteria must be met, namely: 1) the references when combined must teach or suggest all of the claim limitations; 2) suggestion or motivation to, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, modify the reference or combine the reference teachings; and 3) a reasonable expectation of success. MPEP 706.02(j). Applicants submit that not all of these requirements have been met, at least because there is no motivation or suggestion to combine the references in the manner asserted by the Examiner, and because there would be no reasonable expectation of success in doing so.

As an initial matter, Applicants submit that the Carter U.S. reference (U.S. Pat. No. 5,807,706) is not prior art under 35 U.S.C. 103(c). The instant application is a continuation application of U.S. Application Ser. No. 08/850,058, filed on May 2, 1997. The Carter reference is a U.S. patent with a filing date of May 3, 1995 and an issue date of September 15, 1998. Therefore, this references qualifies as prior art only under 102(e).

A reference that is prior art only under 102(e) cannot be used, under 103(c), in an obviousness rejection if the subject matter of the cited reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Applicants hereby make a clear statement of entitlement to exclude the Carter patent as prior art. The Carter patent is assigned to the assignee of the present application. It, and the present application were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

1) **The Examiner has not established a proper motivation to combine these references.**

To establish a prima facie case of obviousness, there must be some suggestion or motivation to combine the reference teachings. MPEP 2142. The Examiner bears the initial burden "to provide some suggestion of the desirability of doing what the inventor has done." *Id.* Applicants respectfully submit that no such motivation exists in the cited references, or in the knowledge of the art, to do what the present inventors have done, namely, selecting a common light chain for each polypeptide of the claimed multispecific antibody.

The Carter reference (WO 96/27011) and the Ridgeway reference are each directed to forming heteromultimers with a multimerization region. These references do not teach or suggest a preparing a heteromultimer by selecting a light chain that associates with the binding region of each first and additional polypeptide of the multispecific antibody. Indeed, the Ridgeway reference is directed to an antibody/immunoadhesin bispecific molecule, and a first and second light chain are not even found in this type of molecule. The Carter reference is directed to forming a multimerization domain, and is silent regarding the selection of a light chain.

Nor does the Kostelney reference remedy this deficiency. This reference is directed to the use of leucine zipper domains to increase the yield of correctly paired bispecific $F(ab')_2$ heterodimers. The Examiner asserts, however, that this reference provides the motivation to look for a single light chain that binds to two different heavy chains as taught by Vaughn, because this reference allegedly teaches that unwanted proteins may be formed from mismatching of different L chains and H chains.

Applicants respectfully submit that the Examiner has mischaracterized the Kostelney reference. In the method of Kostelney, two heterodimer-forming zipper peptides derived from the Fos and Jun proteins were respectively linked to the Fab' portions of two different mAb (145-2C11 and anti-Tac) by gene fusion (See Abstract). The anti-Tac Fab'-Jun and anti-CD3 Fab'-Fos

were then expressed individually as homodimers, reduced *in vitro* to form monomers, and then mixed and reoxidized together to form bispecific antibody products (*Id.,* and page 1548, fourth full paragraph).

Kostelney teach that the two proteins are mixed *in vitro* to form the bispecific antibodies, after having been expressed in separate cells. This method is preferred because of the ease of achieving purity during large-scale production of bispecific antibodies, and because "the T cell binding component of the bispecific antibody such as anti-CD3-Fos need only be generated once, since it can then be combined with a variety of Fab'-Jun components to target different cells" (page 1552, first paragraph).

Therefore, in this method, there is no opportunity for mismatching of light chains to occur. Each mAb-Fab' is individually expressed such that only the cognate light chain is available to associate with the respective Fab'. Consequently, the method of Kostelney does not have the problem of mismatched H and L chains in the final antibody product. Applicants respectfully submit that the Examiner's citations to Kostelney regarding the problem of mismatched chains relate only to a method of forming the antibody that is not the preferred method of the reference. Kostelney states that if the antibody is formed from the two Fab' proteins *in vivo* rather than *in vitro*, mismatching of H and L chains can occur (page 1551, last paragraph to page 1552, first full paragraph). Furthermore, Kostelney states that using *in vivo* methods, "it is difficult to express the two Fab' zipper proteins at equal levels in one cell line, and the excess proteins may form homodimers." , implying that this method is not preferred.

Therefore, Kostelney directs one of skill in the art away from using the *in vivo* method, where each antibody is produced in the same cell, which may lead to mispairing of H and L chains and formation of homodimers. Rather, Kostelney provide a method that eliminates the problem posed by such mismatching of chains. Furthermore, Kostelney does not teach or suggest that a method comprising selecting a common light chain be employed to address the problem of mispairing of the light chains. Consequently, one of skill in the art would not be motivated by Kostelney to seek other solutions to the problem, because Kostelney provides a solution to the problem and directs one of skill in the art away from a method where both polypeptide chains are expressed in the same cell.

The deficiencies of Kostelney are not remedied by reference to Vaughn. The Vaughn et al. reference is directed to preparing a scFv phage library of naïve antibody variable domains.

The reference describes the construction of a large repertoire of single chain Fvs derived from functional V genes. This references describes that the same light chain was sometimes found to pair with different heavy chains. This reference nowhere discusses multispecific antibodies, nor does it suggest that identical light chains be selected for use in a multispecific antibody. The reference nowhere teaches or suggests that there is any advantage of selecting identical light chains over any other light chains.

Applicants respectfully submit, therefore, that the Examiner has failed to establish a motivation to combine the references in a manner that teaches or suggests all limitations of the instant claims. Applicants respectfully submit, therefore, that the Examiner is exercising impermissible hindsight, by utilizing the knowledge disclosed in the Applicants' specification to provide the motivation to combine the teachings of Vaughn and Kostelny. MPEP 2145 X. A. Applicants submit, therefore, that claims 43-49 are patentable over the cited references, at least for this reason and respectively, request withdrawal of the rejection.

2) **The Examiner has failed to show that there would be a reasonable expectation of success in obtaining a bispecific antibody having a light chain capable of associating with the binding region of each first and additional polypeptide of the multispecific antibody.**

In order to establish a prima facie case of obviousness, the Examiner must establish a reasonable expectation of success. The suggestion for the claimed invention and a reasonable expectation of success must be found in the prior art and not in Applicants' disclosure. In re Vacek, 20 USPQ2d 1438, 1142 (Fed. Cir. 1991).

Applicants submit that the Examiner has not established a reasonable expectation of success of increasing yields and efficiency of producing multispecific antibodies using the methods as claimed by Applicants. None of the cited references teach or suggest a method comprising selecting a light chain encoding nucleic acid sequence, when the light chain associates with the binding region of the first and additional polypeptide or that such a method could be utilized to produce multispecific antibodies with improved yield.

Carter & Ridgway are silent regarding this issue. The Kostelney et al. reference is directed to forming bispecific antibodies. However, the Kostelney et al. reference directs one of skill in the art to a different method for forming bispecific antibodies wherein antibodies were expressed separately in different cells as homodimers, reduced *in vitro* to form monomers and

then mixed and reoxidized to form the bispecific antibody products. There is no teaching or suggestion in Kostelney that a method where both polypeptides are expressed in the same cells could be utilized to produce a multispecific antibody in high yield. In fact, the reference indicates that such methods may be undesirable.

As discussed previously, Vaughan et al. is not directed to the problem of preparing multispecific antibodies much less preparing multispecific antibodies in high yield. There is no teaching or suggestion in Vaughan et al. that multispecific antibodies with a common light chains can or should be formed. In fact, in Vaughan et al., lack of diversity of the library was viewed as a negative aspect of the library. In addition, Vaughan et al. did not teach or suggest that ScFv with light chains having at 100% sequence identity would be found in the majority of possible pairwise combinations of two different antigen specificities.

Thus, based on the teachings of these references one of skill in the art would not have had a reasonable expectation of success of preparing a multispecific antibody comprising a light chain encoding nucleic acid, wherein the light chain associates with the binding region of each first and addition of polypeptide of the multispecific antibody.

Based on the foregoing, Applicants contend the Examiner has not established a prima facie case of obviousness for at least these reasons and request withdrawal of the 35 U.S.C. § 103 rejection.

Double Patenting

Applicants acknowledge the provisional rejection of claims 30-49 under the judicially created doctrine of obviousness-type double patenting, as unpatentable over claims 30-51 of copending Application No. 09/863,693. Upon notice of allowable claims in this case, Applicants will timely file a Terminal Disclaimer under 37 C.F.R. 1.321(c) if appropriate to overcome this rejection.

Applicants acknowledge the provisional rejection of claims 30-49 under the judicially created doctrine of obviousness-type double patenting, as unpatentable over claims 47-63 of copending Application No. 09/520,130. Upon notice of allowable claims in this case, Applicants will timely file a Terminal Disclaimer under 37 C.F.R. 1.321(c) if appropriate to overcome this rejection.

Applicants acknowledge the provisional rejection of claims 30-49 under the judicially created doctrine of obviousness-type double patenting, as unpatentable over claims 1-29 of copending Application No. 10/143,437. Upon notice of allowable claims in this case, Applicants will timely file a Terminal Disclaimer under 37 C.F.R. 1.321(c) if appropriate to overcome this rejection.

Summary

Applicants submit that the claims are in condition for allowance and notification to that effect is earnestly solicited. The Examiner is invited to contact Applicants' representative if prosecution may be assisted thereby.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332.5300

Date: May 13, 2004

Katherine M. Kowalchyk
Reg. No. 36,848
KMK:GJG:sab

							Axl											GCSFR						
	Clone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Axl.25	-	49	50	81	83	79	83	46	49	49	90	45	80	46	48	42	43	44	49	50	50	79	49
2	Axl.26		-	98	48	52	47	52	70	77	71	49	68	47	68	72	57	58	59	71	97	98	47	71
3	Axl.27			-	49	53	48	53	72	79	73	50	70	48	69	74	59	60	61	73	99	100	48	73
4	Axl.32				-	82	83	83	48	49	46	85	45	84	44	48	42	42	44	46	49	49	98	48
5	Axl.35					-	77	100	48	52	52	84	51	78	49	52	46	47	48	52	53	53	80	53
6	Axl.36						-	78	48	48	47	85	47	99	44	47	42	42	43	47	48	48	81	49
7	Axl.47							-	48	52	52	84	51	79	49	52	46	47	48	52	53	53	81	53
8	Axl.51								-	72	64	49	61	48	60	66	57	57	58	64	71	72	47	69
9	Axl.75									-	66	50	60	48	62	65	61	60	63	66	78	79	48	67
10	Axl.78										-	48	85	47	95	90	59	58	61	100	72	73	45	94
11	Axl.80											-	47	85	45	49	43	44	45	48	50	50	84	50
12	Axl.82												-	47	80	83	60	58	62	85	69	70	44	82
13	GCSFR.3.2E.A1													-	44	47	42	42	43	47	48	48	82	49
14	GCSFR.3.2E.D5														-	87	57	56	58	95	68	69	43	90
15	GCSFR.3.2E.D6															-	60	60	62	90	73	74	47	90
16	GCSFR.3.2E.G5																-	90	98	59	58	59	42	59
17	GCSFR.3.3E.C4																	-	91	58	59	60	42	58
18	GCSFR.A2																		-	61	60	61	43	61
19	GCSFR.A4																			-	72	73	45	94
20	GCSFR.A5																				-	99	48	72
21	GCSFR.A8																					-	48	73
22	GCSFR.F7																						-	47
23	GCSFR.G3																							-
24	IgE.D8																							
25	IgE.G2																							
26	IgER.1A12																							
27	IgER.1D11																							
28	IgER.1E10																							
29	IgER.MAT2C1G11																							
30	Mpl.01																							
31	Mpl.02																							
32	Mpl.03																							
33	Mpl.04																							
34	Mpl.05																							
35	Mpl.06																							
36	Mpl.07																							
37	Mpl.08																							
38	Mpl.11																							
39	Mpl.12																							
40	Mpl.14																							

Table 6.1

41	Mpl.16
42	Mpl.19
43	Mpl.21
44	Mpl.24
45	Mpl.26
46	Mpl.28
47	Mpl.29
48	Mpl.30
49	Mpl.31
50	Mpl.32
51	Mpl.33
52	Mpl.35
53	MusK.01
54	MusK.02
55	MusK.06
56	NpoR.25
57	NpoR.44
58	NpoR.53
59	NpoR.81
60	NpoR.86
61	Rse.01
62	Rse.02
63	Rse.03
64	Rse.04
65	Rse.07
66	Rse.08
67	Rse.15
68	Rse.16
69	Rse.18
70	Rse.20
71	Rse.21
72	Rse.22
73	Rse.23
74	Rse.24
75	Rse.52
76	Rse.53
77	Rse.58
78	Rse.60
79	Rse.61
80	Rse.63
81	her3.1
82	her3.10

Table 6.2

83	her3.11																						
84	her3.12																						
85	her3.16																						
86	her3.18																						
87	her3.19																						
88	her3.22																						
89	her3.3																						
90	her3.4																						
91	her3.7																						
92	obr.1																						
93	obr.11																						
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98	obr.17																						
99	obr.18																						
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102	obr.20																						
103	obr.21																						
104	obr.22																						
105	obr.23																						
106	obr.24																						
107	obr.26																						
108	obr.3																						
109	obr.4																						
110	vegf.1																						
111	vegf.10																						
112	vegf.2																						
113	vegf.3																						
114	vegf.4																						
115	vegf.5																						
116	vegf.6																						
117	vegf.8																						
	Clone	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
							Axl											GCSFR						

Table 6.3

IgE			IgER												MPL												
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
44	80	44	48	44	49	46	44	46	79	50	100	51	49	79	78	81	81	49	80	80	50	80	43	45	46	47	47
59	47	59	66	58	71	58	57	57	47	66	50	76	68	48	43	48	48	68	47	48	70	48	65	72	73	69	63
61	48	61	68	60	73	60	59	59	48	68	50	77	70	49	44	49	49	70	48	49	72	49	66	74	75	70	65
44	84	44	46	44	46	46	42	45	83	48	81	50	46	83	80	100	100	45	84	83	47	99	45	46	47	47	44
48	78	48	52	48	52	48	45	48	78	53	83	55	52	78	76	82	82	51	78	78	53	82	49	48	49	50	51
43	98	43	48	43	47	45	43	44	98	47	79	48	47	94	95	83	82	46	99	99	48	82	43	46	47	45	46
48	79	48	52	48	52	50	47	49	78	53	83	53	52	78	75	83	82	51	79	78	53	83	47	48	49	49	50
58	48	58	62	57	64	57	55	56	48	62	47	74	64	47	44	48	48	65	48	49	63	48	73	80	80	76	60
63	49	63	64	62	66	62	58	61	48	64	50	78	68	48	44	49	49	68	48	49	65	49	68	74	75	72	61
61	47	61	80	60	100	60	57	59	47	79	50	66	84	48	43	46	46	83	47	48	97	46	61	65	66	65	79
45	85	45	48	45	48	47	45	47	85	49	90	52	48	83	84	85	86	47	85	86	49	85	45	47	48	49	47
62	47	62	74	61	85	61	56	60	47	74	46	62	75	47	43	45	45	75	47	48	85	45	60	61	62	64	72
43	99	43	48	43	47	45	43	44	99	47	80	48	47	95	96	84	83	46	100	100	48	83	43	46	47	45	46
58	44	58	76	57	95	57	54	56	44	75	47	63	79	45	41	44	44	79	44	45	92	44	57	60	61	61	74
62	47	62	76	61	90	61	58	60	47	76	49	67	79	48	43	48	48	79	47	48	89	48	62	64	65	65	74
98	42	98	59	97	59	97	87	98	42	71	43	65	57	42	38	42	42	60	42	42	59	42	52	57	58	59	55
91	42	91	57	90	58	90	97	91	42	66	44	64	55	42	38	42	42	57	42	42	58	42	51	57	58	57	52
100	43	100	61	99	61	99	88	100	43	72	45	67	59	44	40	44	44	62	43	44	61	44	54	59	60	61	57
61	47	61	80	60	100	60	57	59	47	79	50	66	84	48	43	46	46	83	47	48	97	46	61	65	66	65	79
60	48	60	67	59	72	60	59	59	48	68	50	77	70	49	44	49	49	69	48	49	71	49	66	73	74	70	65
61	48	61	68	60	73	60	59	59	48	68	50	77	70	49	44	49	49	70	48	49	72	49	66	74	75	70	65
43	82	43	45	43	45	45	41	44	81	47	79	49	45	81	78	98	97	44	82	81	46	97	44	45	46	46	43
61	49	61	75	60	94	60	57	59	49	74	50	67	78	50	45	48	48	79	49	50	93	48	64	70	70	68	73
-	43	100	61	99	61	99	88	100	43	72	45	67	59	44	40	44	44	62	43	44	61	44	54	59	60	61	57
	-	43	48	43	47	45	43	44	98	47	80	48	47	94	95	84	83	46	99	99	48	83	43	46	47	45	46
		-	61	99	61	99	88	100	43	72	45	67	59	44	40	44	44	62	43	44	61	44	54	59	60	61	57
			-	60	80	60	55	59	48	85	49	65	94	48	44	46	46	93	48	49	78	46	58	60	60	61	99
				-	60	98	87	99	43	71	45	67	58	44	40	44	44	61	43	44	60	44	53	58	59	60	56
					-	60	57	59	47	79	50	66	84	48	43	46	46	83	47	48	97	46	61	65	66	65	79
						-	87	99	45	75	46	67	61	45	41	46	44	61	45	44	60	46	55	58	59	60	57
							-	88	43	67	44	63	56	43	39	42	40	56	43	42	57	42	51	56	57	55	52
								-	44	74	46	68	60	44	42	45	44	60	44	44	59	45	55	57	58	60	58
									-	47	80	48	47	94	95	83	83	46	99	100	48	82	43	46	47	45	46
										-	50	75	82	47	43	48	48	80	47	48	76	48	64	62	63	66	84
											-	51	50	79	78	81	81	50	80	80	50	80	43	46	47	48	47
												-	70	47	46	50	51	69	48	49	65	50	74	72	73	75	64
													-	47	43	46	46	97	47	48	81	46	62	63	64	64	93
														-	91	83	83	47	95	96	49	82	42	46	47	47	45
															-	80	81	42	96	98	44	79	40	42	43	43	46
																-	100	45	84	83	47	99	45	46	47	47	44

Table 6.4

-	45	83	83	47	98	47	46	47	48	45
	-	46	47	80	45	61	63	64	64	92
		-	100	48	83	43	46	47	45	46
			-	49	82	44	47	48	47	48
				-	47	64	64	65	68	76
					-	45	46	47	47	44
						-	74	74	93	57
							-	99	77	57
								-	78	58
									-	60
										-

Table 6.5

24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
IgE			IgER												MPL												

Table 6.6

	MusK					NpoR												Rse								
	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	
79	80	79	81	81	44	45	45	80	46	46	46	48	72	81	49	46	47	47	45	81	49	81	51	49	44	46	100	
47	47	47	48	50	59	46	45	47	73	73	71	70	42	48	71	69	71	70	70	48	71	47	83	94	59	73	49	
48	48	48	49	51	61	47	46	48	75	75	73	72	43	49	73	71	73	71	72	49	73	48	85	96	61	75	50	
83	84	83	100	81	44	48	46	84	47	47	46	45	88	100	46	43	47	44	45	100	46	99	49	49	44	47	81	
77	78	77	82	79	48	48	47	78	49	49	51	51	80	82	52	48	52	50	50	82	52	82	55	52	48	49	83	
98	99	98	83	76	43	46	44	99	47	47	47	46	73	83	47	43	48	45	46	83	47	82	49	48	43	47	79	
78	79	78	83	80	48	48	46	79	49	49	51	51	74	83	52	48	52	50	50	83	52	82	55	52	48	49	83	
48	48	48	48	49	58	44	44	48	80	80	65	63	41	48	64	60	67	62	64	48	64	47	68	76	58	80	46	
48	48	48	49	51	63	46	48	48	75	75	66	65	42	49	66	61	66	64	65	49	66	48	74	75	63	75	49	
47	47	47	46	49	61	48	47	47	66	66	89	99	41	46	100	95	90	98	88	46	100	45	83	73	61	66	49	
85	85	85	85	81	45	46	46	85	48	48	47	47	77	85	48	45	48	46	46	85	48	85	51	50	45	48	90	
47	47	47	45	47	62	45	46	47	62	62	80	84	40	45	85	84	81	83	79	45	85	44	77	70	62	62	45	
99	100	99	84	77	43	46	44	100	47	47	47	46	74	84	47	43	48	45	46	84	47	83	49	48	43	47	80	
44	44	44	44	46	58	46	45	44	61	61	84	94	40	44	95	90	86	93	86	44	95	43	78	69	58	61	46	
47	47	47	48	50	62	50	49	47	65	65	88	89	42	48	90	86	89	88	88	48	90	47	89	76	62	65	48	
41	42	41	42	44	98	47	46	42	57	58	58	58	38	42	59	52	59	57	57	42	59	42	62	57	98	58	42	
41	42	41	42	43	91	48	49	42	57	58	57	57	38	42	58	52	58	57	57	42	58	42	62	58	91	58	43	
42	43	42	44	46	100	49	48	43	59	60	60	60	40	44	61	54	61	59	59	44	61	43	64	59	100	60	44	
47	47	47	46	49	61	48	47	47	66	66	89	99	41	46	100	95	90	98	88	46	100	45	83	73	61	66	49	
48	48	48	49	51	60	46	45	48	75	74	72	71	43	49	72	71	72	70	72	49	72	48	84	95	60	74	50	
48	48	48	49	51	61	47	46	48	75	75	73	72	43	49	73	71	73	71	72	49	73	48	85	96	61	75	50	
81	82	81	98	79	43	47	45	82	46	46	45	44	86	98	45	42	46	43	44	98	45	97	48	48	43	46	79	
49	49	49	48	51	61	49	49	49	70	70	89	93	43	48	94	89	90	92	88	48	94	47	83	77	61	70	49	
42	43	42	44	46	100	49	48	43	59	60	60	60	40	44	61	54	61	59	59	44	61	43	64	59	100	60	44	
98	99	98	84	77	43	46	44	99	47	47	47	46	74	84	47	43	48	45	46	84	47	83	49	48	43	47	80	
42	43	42	44	46	100	49	48	43	59	60	60	60	40	44	61	54	61	59	59	44	61	43	64	59	100	60	44	
48	48	48	46	50	61	48	45	48	60	60	74	80	40	46	80	79	75	79	73	46	80	45	71	68	61	60	48	
42	43	42	44	46	99	49	48	43	58	59	59	59	40	44	60	53	60	58	58	44	60	43	63	58	99	59	44	
47	47	47	46	49	61	48	47	47	66	66	89	99	41	46	100	95	90	98	88	46	100	45	83	73	61	66	49	
44	45	44	46	48	99	48	47	45	59	59	59	59	40	46	60	54	60	58	59	46	60	45	63	58	99	59	46	
42	43	42	42	44	88	48	49	43	57	57	56	56	36	42	57	52	57	55	56	42	57	41	60	57	88	57	44	
43	44	43	45	47	100	47	47	44	58	58	58	58	41	45	59	54	59	57	58	45	59	45	62	57	100	58	46	
98	99	98	83	76	43	46	44	99	47	47	47	46	74	83	47	43	48	45	46	83	47	82	49	48	43	47	79	
47	47	47	48	50	72	48	45	47	63	63	73	78	42	48	79	78	74	77	73	48	79	47	71	68	72	63	50	
79	80	79	81	81	45	46	46	80	47	47	47	49	73	81	50	46	48	48	46	81	50	81	51	50	45	47	100	
48	48	48	50	52	67	47	45	48	73	73	65	65	47	50	66	64	66	64	65	50	66	50	75	74	67	73	51	
47	47	47	46	52	59	46	43	47	64	64	75	83	41	46	84	83	76	82	74	46	84	45	72	70	59	64	49	
94	95	94	83	75	44	47	45	95	47	47	48	47	74	83	48	43	49	46	47	83	48	82	50	49	44	47	79	
95	96	95	80	73	40	43	43	96	43	43	43	42	72	80	43	43	44	43	44	80	43	80	45	44	40	43	78	
83	84	83	100	81	44	48	46	84	47	47	46	45	88	100	46	43	47	44	45	100	46	99	49	49	44	47	81	

Table 6.7

82	83	82	100	80	44	48	47	83	47	47	46	45	94	100	46	43	47	44	45	100	46	100	49	49	44	47	81
46	46	46	45	51	62	48	45	46	64	64	75	82	40	45	83	82	76	81	74	45	83	44	73	70	62	64	49
99	100	99	84	77	43	46	44	100	47	47	47	46	74	84	47	43	48	45	46	84	47	83	49	48	43	47	80
99	100	99	83	76	44	47	46	100	48	48	48	47	78	83	48	43	49	46	47	83	48	83	50	49	44	48	80
48	48	48	47	50	61	48	47	48	65	65	88	96	42	47	97	92	90	95	88	47	97	46	82	72	61	65	50
82	83	82	99	80	44	48	46	83	47	47	46	45	87	99	46	43	47	44	45	99	46	98	49	49	44	47	80
43	43	43	45	47	54	39	38	43	74	74	60	60	45	45	61	62	61	59	60	45	61	44	66	68	54	74	43
46	46	46	46	48	59	46	45	46	99	99	66	64	42	46	65	60	67	63	65	46	65	45	66	78	59	99	45
47	47	47	47	49	60	47	46	47	100	100	67	65	42	47	66	60	68	64	66	47	66	46	67	79	60	100	46
45	45	45	47	49	61	44	45	45	77	78	64	64	43	47	65	61	65	63	64	47	65	47	69	72	61	78	47
46	46	46	44	48	57	44	42	46	58	58	72	78	40	44	79	78	73	77	71	44	79	44	68	65	57	58	47
-	99	100	83	76	42	45	43	99	47	47	47	46	73	83	47	43	48	45	46	83	47	82	49	48	42	47	79
	-	99	84	77	43	46	44	100	47	47	47	46	74	84	47	43	48	45	46	84	47	83	49	48	43	47	80
		-	83	76	42	45	43	99	47	47	47	46	73	83	47	43	48	45	46	83	47	82	49	48	42	47	79
			-	81	44	48	46	84	47	47	46	45	88	100	46	43	47	44	45	100	46	99	49	49	44	47	81
				-	46	44	42	77	49	49	49	48	71	81	49	46	49	47	47	81	49	80	52	51	46	49	81
					-	49	48	43	59	60	60	60	40	44	61	54	61	59	59	44	61	43	64	59	100	60	44
						-	94	46	46	47	48	47	41	48	48	42	49	47	47	48	48	47	50	47	49	47	45
							-	44	45	46	47	46	41	46	47	43	48	46	46	46	47	46	49	46	48	46	45
								-	47	47	47	46	74	84	47	43	48	45	46	84	47	83	49	48	43	47	80
									-	100	66	65	43	47	66	60	67	64	66	47	66	46	66	78	59	100	46
										-	67	65	42	47	66	60	68	64	66	47	66	46	67	79	60	100	46
											-	88	41	46	89	86	97	87	96	46	89	45	82	75	60	67	46
												-	40	45	99	94	90	99	88	45	99	44	82	72	60	65	48
													-	88	41	43	42	40	41	88	41	88	44	43	40	42	72
														-	46	43	47	44	45	100	46	99	49	49	44	47	81
															-	95	90	98	88	46	100	45	83	73	61	66	49
																-	85	95	85	43	95	43	78	71	54	60	46
																	-	89	97	47	90	46	83	75	61	68	47
																		-	88	44	98	43	81	71	59	64	47
																			-	45	88	44	81	74	59	66	45
																				-	46	99	49	49	44	47	81
																					-	45	83	73	61	66	49
																							48	48	43	46	81
																							-	81	64	67	51
																								-	59	79	49
																									-	60	44
																										-	46
																											-

Table 6.8

52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
	MusK					NpoR												Rse									

Table 6.9

						Her3															ObR						
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107
45	81	100	85	51	47	80	48	85	46	44	85	46	79	82	48	46	79	100	100	100	79	80	100	46	50	78	80
72	48	49	51	92	65	47	74	51	73	59	51	73	47	49	75	73	47	49	49	49	47	47	49	73	98	46	47
74	49	50	52	94	67	48	76	52	75	61	52	75	48	50	77	75	48	50	50	50	48	48	50	75	100	47	48
46	100	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84
48	82	83	83	54	51	78	50	83	49	48	83	49	78	83	51	49	78	83	83	83	77	78	83	49	53	76	78
46	83	79	85	49	47	99	46	85	47	43	85	47	98	94	45	47	98	79	79	79	97	98	79	47	48	96	99
48	83	83	84	54	51	79	49	84	49	48	84	49	79	84	50	49	79	83	83	83	78	79	83	49	53	77	79
80	48	46	49	75	61	48	70	49	80	58	49	80	48	48	66	80	49	46	46	46	48	48	46	80	72	47	48
74	49	49	50	80	63	48	86	50	75	63	50	75	48	50	67	75	48	49	49	49	47	48	49	75	79	47	48
65	46	49	49	76	80	47	62	49	66	61	49	66	47	49	92	66	47	49	49	49	47	47	49	66	73	46	47
47	85	90	95	51	47	85	49	95	48	45	95	48	86	84	47	48	85	90	90	90	84	85	90	48	50	84	85
61	45	45	47	70	73	47	61	47	62	62	47	62	47	49	81	62	47	45	45	45	46	47	45	62	70	46	47
46	84	80	86	49	47	100	46	86	47	43	86	47	99	95	45	47	99	80	80	80	98	99	80	47	48	97	100
60	44	46	46	71	75	44	59	46	61	58	46	61	44	46	88	61	44	46	46	46	44	44	46	61	69	43	44
64	48	48	49	75	75	47	62	49	65	62	49	65	47	48	84	65	48	48	48	48	47	47	48	65	74	46	47
57	42	42	43	63	58	42	60	43	58	98	43	58	42	42	61	58	42	42	42	42	42	42	42	58	59	41	42
57	42	43	44	62	56	42	59	44	58	91	44	58	42	42	60	58	42	43	43	43	42	42	43	58	60	41	42
59	44	44	45	65	60	43	61	45	60	100	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
65	46	49	49	76	80	47	62	49	66	61	49	66	47	49	92	66	47	49	49	49	47	47	49	66	73	46	47
73	49	50	52	93	66	48	75	52	74	60	52	74	48	50	76	74	48	50	50	50	48	48	50	74	99	47	48
74	49	50	52	94	67	48	76	52	75	61	52	75	48	50	77	75	48	50	50	50	48	48	50	75	100	47	48
45	98	79	83	48	44	82	45	83	46	43	83	46	82	81	44	46	81	79	79	79	81	81	79	46	48	80	82
70	48	49	51	76	74	49	63	51	70	61	51	70	49	50	87	70	49	49	49	49	49	49	49	70	73	48	49
59	44	44	45	65	60	43	61	45	60	100	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
46	84	80	86	49	47	99	47	86	47	43	86	47	98	94	45	47	98	80	80	80	97	98	80	47	48	97	99
59	44	44	45	65	60	43	61	45	60	100	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
60	46	48	49	69	99	48	60	49	60	61	49	60	48	49	78	60	48	48	48	48	48	48	48	60	68	47	48
58	44	44	45	64	59	43	60	45	59	99	45	59	43	44	62	59	43	44	44	44	43	43	44	59	60	42	43
65	46	49	49	76	80	47	62	49	66	61	49	66	47	49	92	66	47	49	49	49	47	47	49	66	73	46	47
58	46	46	47	64	59	45	60	47	59	99	47	59	45	46	62	59	45	46	46	46	45	45	46	59	60	44	45
56	42	44	46	61	54	43	57	46	57	88	46	57	43	44	59	57	43	44	44	44	43	43	44	57	59	42	43
57	45	46	46	63	58	44	60	46	58	100	46	58	44	45	62	58	44	46	46	46	44	44	46	58	59	43	44
46	83	79	85	49	47	99	46	85	47	43	85	47	98	94	45	47	98	79	79	79	97	98	79	47	48	96	99
62	48	50	49	72	84	47	62	49	63	72	49	63	47	49	81	63	47	50	50	50	47	47	50	63	68	46	47
46	81	100	85	51	48	80	49	85	47	45	85	47	79	82	49	47	79	100	100	100	79	80	100	47	50	78	80
72	50	51	51	79	64	48	78	51	73	67	51	73	48	50	69	73	48	51	51	51	48	48	51	73	77	47	48
63	46	49	49	71	93	47	63	49	64	59	49	64	47	49	81	64	47	49	49	49	47	47	49	64	70	46	47
46	83	79	84	50	47	95	46	84	47	44	84	47	94	94	46	47	94	79	79	79	93	94	79	47	49	92	95
42	80	78	83	45	43	96	44	83	43	40	83	43	95	91	42	43	95	78	78	78	94	95	78	43	44	93	96
46	100	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84

Table 6.10

46	100	81	84	49	45	83	47	84	47	44	84	47	83	82	46	47	82	81	81	81	82	82	81	47	49	81	83
63	45	49	48	70	92	46	63	48	64	62	48	64	46	48	80	64	46	49	49	49	46	46	49	64	70	45	46
46	84	80	86	49	47	100	46	86	47	43	86	47	99	95	45	47	99	80	80	80	98	99	80	47	48	97	100
47	83	80	86	50	48	100	48	86	48	44	86	48	99	95	47	48	99	80	80	80	98	99	80	48	49	97	100
64	47	50	50	75	77	48	61	50	65	61	50	65	48	50	90	65	48	50	50	50	48	48	50	65	72	47	48
46	99	80	84	49	45	83	46	84	47	44	84	47	83	82	45	47	82	80	80	80	82	82	80	47	49	81	83
73	45	43	44	68	57	43	68	44	74	54	44	74	43	45	63	74	43	43	43	43	43	43	43	74	66	42	43
98	46	45	49	80	59	46	75	49	99	59	49	99	46	47	71	99	46	45	45	45	46	46	45	99	74	45	46
99	47	46	50	80	60	47	76	50	100	60	50	100	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
77	47	47	46	72	60	45	74	46	78	61	46	78	45	47	65	78	45	47	47	47	45	45	47	78	70	44	45
57	44	47	47	66	98	46	58	47	58	57	47	58	46	47	77	58	46	47	47	47	46	46	47	58	65	45	46
46	83	79	85	49	47	99	46	85	47	42	85	47	98	94	45	47	98	79	79	79	97	98	79	47	48	96	99
46	84	80	86	49	47	100	46	86	47	43	86	47	99	95	45	47	99	80	80	80	98	99	80	47	48	97	100
46	83	79	85	49	47	99	46	85	47	42	85	47	98	94	45	47	98	79	79	79	97	98	79	47	48	96	99
46	100	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84
48	81	81	80	52	49	77	46	80	49	46	80	49	77	79	48	49	76	81	81	81	77	77	81	49	51	75	77
59	44	44	45	65	60	43	61	45	60	100	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
46	48	45	48	49	48	46	44	48	47	49	48	47	46	46	45	47	46	45	45	45	47	46	45	47	47	45	46
45	46	45	46	48	45	44	45	46	46	48	46	46	44	44	45	46	44	45	45	45	45	44	45	46	46	43	44
46	84	80	86	49	47	100	46	86	47	43	86	47	99	95	45	47	99	80	80	80	98	99	80	47	48	97	100
99	47	46	50	80	59	47	76	50	100	59	50	100	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
99	47	46	50	80	60	47	76	50	100	60	50	100	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
66	46	46	48	76	73	47	62	48	67	60	48	67	47	48	82	67	47	46	46	46	47	47	46	67	73	46	47
65	45	48	48	75	79	46	61	48	65	60	48	65	46	48	91	65	46	48	48	48	46	46	48	65	72	45	46
41	88	72	75	44	40	74	41	75	42	40	75	42	74	73	41	42	74	72	72	72	73	73	72	42	43	72	74
46	100	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84
65	46	49	49	76	80	47	62	49	66	61	49	66	47	49	92	66	47	49	49	49	47	47	49	66	73	46	47
59	43	46	45	72	78	43	58	45	60	54	45	60	43	45	91	60	43	46	46	46	43	43	46	60	71	42	43
67	47	47	49	76	74	48	62	49	68	61	49	68	48	49	83	68	48	47	47	47	48	48	47	68	73	47	48
64	44	47	47	74	78	45	60	47	64	59	47	64	45	47	90	64	45	47	47	47	45	45	47	64	71	44	45
65	45	45	47	75	72	46	62	47	66	59	47	66	46	47	81	66	46	45	45	45	46	46	45	66	72	45	46
46	100	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84
65	46	49	49	76	80	47	62	49	66	61	49	66	47	49	92	66	47	49	49	49	47	47	49	66	73	46	47
45	99	81	84	48	44	83	46	84	46	43	84	46	83	82	44	46	82	81	81	81	82	82	81	46	48	81	83
66	49	51	51	86	70	49	71	51	67	64	51	67	49	51	77	67	50	51	51	51	49	49	51	67	85	48	49
78	49	49	52	90	67	48	72	52	79	59	52	79	48	49	77	79	48	49	49	49	48	48	49	79	96	47	48
59	44	44	45	65	60	43	61	45	60	100	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
99	47	46	50	80	60	47	76	50	100	60	50	100	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
45	81	100	85	51	47	80	48	85	46	44	85	46	79	82	48	46	79	100	100	100	79	80	100	46	50	78	80
.	46	45	49	80	59	46	75	49	99	59	49	99	46	47	71	99	46	45	45	45	46	46	45	99	74	45	46
.	-	81	85	49	45	84	46	85	47	44	85	47	84	83	45	47	83	81	81	81	83	83	81	47	49	82	84
		-	85	51	47	80	48	85	46	44	85	46	79	82	48	46	79	100	100	100	79	80	100	46	50	78	80

Table 6.11

			-	53	48	86	47	100	50	45	100	50	87	85	49	50	85	85	85	85	85	86	85	50	52	85	86
				-	68	49	78	53	80	65	53	80	49	51	82	80	49	51	51	51	49	49	51	80	94	48	49
					-	47	59	48	60	60	48	60	47	48	77	60	47	47	47	47	47	47	47	60	67	46	47
						-	46	86	47	43	86	47	99	95	45	47	99	80	80	80	98	99	80	47	48	97	100
							-	47	76	61	47	76	46	48	65	76	46	48	48	48	45	46	48	76	76	45	46
								-	50	45	100	50	87	85	49	50	85	85	85	85	85	86	85	50	52	85	86
									-	60	50	100	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
										-	45	60	43	44	63	60	43	44	44	44	43	43	44	60	61	42	43
											-	50	87	85	49	50	85	85	85	85	85	86	85	50	52	85	86
												-	47	48	72	100	47	46	46	46	47	47	46	100	75	46	47
													-	94	45	47	98	79	79	79	97	98	79	47	48	96	99
														-	47	48	94	82	82	82	93	94	82	48	50	92	95
															-	72	45	48	48	48	45	45	48	72	77	44	45
																-	47	46	46	46	47	47	46	100	75	46	47
																	-	79	79	79	97	98	79	47	48	96	99
																		-	100	100	79	80	100	46	50	78	80
																			-	100	79	80	100	46	50	78	80
																				-	79	80	100	46	50	78	80
																					-	97	79	47	48	95	98
																						-	80	47	48	96	99
																							-	46	50	78	80
																								-	75	46	47
																									-	47	48
																										-	97
																											-
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107
						Her3															OBR						

Table 6:12

					VEGF						
108	109	110	111	112	113	114	115	116	117		Clone
44	49	85	80	80	44	48	49	85	85	1	Axl.25
59	70	51	47	47	58	70	71	52	51	2	Axl.26
61	72	52	48	48	60	71	73	53	52	3	Axl.27
44	46	85	84	84	44	48	46	83	85	4	Axl.32
48	52	83	78	78	48	51	52	83	83	5	Axl.35
43	47	85	99	99	43	46	47	84	85	6	Axl.36
48	52	84	79	79	48	50	52	83	84	7	Axl.47
58	64	49	48	48	58	77	64	50	49	8	Axl.51
63	66	50	48	48	62	72	66	51	50	9	Axl.75
61	99	49	47	47	61	66	100	50	49	10	Axl.78
45	48	95	85	85	45	50	48	95	95	11	Axl.80
62	84	47	47	47	62	65	85	48	47	12	Axl.82
43	47	86	100	100	43	46	47	85	86	13	GCSFR.3.2E.A1
58	94	46	44	44	58	62	95	47	46	14	GCSFR.3.2E.D5
62	89	49	47	47	62	66	90	50	49	15	GCSFR.3.2E.D6
98	58	43	42	42	97	59	59	44	43	16	GCSFR.3.2E.G5
91	57	44	42	42	90	57	58	45	44	17	GCSFR.3.3E.C4
100	60	45	43	43	99	61	61	46	45	18	GCSFR.A2
61	99	49	47	47	61	66	100	50	49	19	GCSFR.A4
60	71	52	48	48	59	70	72	53	52	20	GCSFR.A5
61	72	52	48	48	60	71	73	53	52	21	GCSFR.A8
43	45	83	82	82	43	47	45	81	83	22	GCSFR.F7
61	94	51	49	49	61	69	94	52	51	23	GCSFR.G3
100	60	45	43	43	99	61	61	46	45	24	IgE.D8
43	47	86	99	99	43	46	47	85	86	25	IgE.G2
100	60	45	43	43	99	61	61	46	45	26	IgER.1A12
61	80	49	48	48	61	62	80	50	49	27	IgER.1D11
99	59	45	43	43	98	60	60	46	45	28	IgER.1E10
61	99	49	47	47	61	66	100	50	49	29	IgER.MAT2C1G11
99	59	47	45	45	98	60	60	46	47	30	Mpl.01
88	56	46	43	43	87	55	57	45	46	31	Mpl.02
100	58	46	44	44	99	60	59	46	46	32	Mpl.03
43	47	85	99	99	43	46	47	85	85	33	Mpl.04
72	78	49	47	47	72	67	79	50	49	34	Mpl.05
45	50	85	80	80	45	49	50	85	85	35	Mpl.06
67	66	51	48	48	66	76	66	54	51	36	Mpl.07
59	83	49	47	47	59	65	84	50	49	37	Mpl.08
44	48	84	95	95	44	46	48	83	84	38	Mpl.11
40	43	83	96	96	40	44	43	83	83	39	Mpl.12
44	46	85	84	84	44	48	46	83	85	40	Mpl.14

Table 6.13

44	46	84	83	83	44	49	46	83	84	41	Mpl.16
62	82	48	46	46	62	65	83	49	48	42	Mpl.19
43	47	86	100	100	43	46	47	85	86	43	Mpl.21
44	48	86	100	100	44	48	48	85	86	44	Mpl.24
61	96	50	48	48	61	69	97	51	50	45	Mpl.26
44	46	84	83	83	44	48	46	82	84	46	Mpl.28
54	61	44	43	43	54	94	61	47	44	47	Mpl.29
59	65	49	46	46	59	78	65	50	49	48	Mpl.30
60	66	50	47	47	60	79	66	51	50	49	Mpl.31
61	65	46	45	45	61	99	65	48	46	50	Mpl.32
57	78	47	46	46	57	60	79	49	47	51	Mpl.33
42	47	85	99	99	42	46	47	84	85	52	Mpl.35
43	47	86	100	100	43	46	47	85	86	53	MusK.01
42	47	85	99	99	42	46	47	84	85	54	MusK.02
44	46	85	84	84	44	48	46	83	85	55	MusK.06
46	49	80	77	77	46	50	49	78	80	56	NpoR.25
100	60	45	43	43	99	61	61	46	45	57	NpoR.44
49	48	48	46	46	49	45	48	49	48	58	NpoR.53
48	47	46	44	44	48	46	47	48	46	59	NpoR.81
43	47	86	100	100	43	46	47	85	86	60	NpoR.86
59	66	50	47	47	59	78	66	51	50	61	Rse.01
60	66	50	47	47	60	79	66	51	50	62	Rse.02
60	88	48	47	47	60	65	89	49	48	63	Rse.03
60	98	48	46	46	60	65	99	49	48	64	Rse.04
40	41	75	74	74	40	44	41	80	75	65	Rse.07
44	46	85	84	84	44	48	46	83	85	66	Rse.08
61	99	49	47	47	61	66	100	50	49	67	Rse.15
54	94	45	43	43	54	62	95	46	45	68	Rse.16
61	90	49	48	48	61	66	90	50	49	69	Rse.18
59	97	47	45	45	59	64	98	48	47	70	Rse.20
59	88	47	46	46	59	65	88	48	47	71	Rse.21
44	46	85	84	84	44	48	46	83	85	72	Rse.22
61	99	49	47	47	61	66	100	50	49	73	Rse.23
43	45	84	83	83	43	48	45	83	84	74	Rse.24
64	82	51	49	49	63	70	83	52	51	75	Rse.52
59	72	52	48	48	59	73	73	53	52	76	Rse.53
100	60	45	43	43	99	61	61	46	45	77	Rse.58
60	66	50	47	47	60	79	66	51	50	78	Rse.60
44	49	85	80	80	44	48	49	85	85	79	Rse.61
59	65	49	46	46	59	78	65	50	49	80	Rse.63
44	46	85	84	84	44	48	46	83	85	81	her3.1
44	49	85	80	80	44	48	49	85	85	82	her3.10

Table 6.14

45	49	100	86	86	45	47	49	99	100	83	her3.11
65	75	53	49	49	64	73	76	54	53	84	her3.12
60	79	48	47	47	60	61	80	49	48	85	her3.16
43	47	86	100	100	43	46	47	85	86	86	her3.18
61	62	47	46	46	60	75	62	49	47	87	her3.19
45	49	100	86	86	45	47	49	99	100	88	her3.22
60	66	50	47	47	60	79	66	51	50	89	her3.3
100	60	45	43	43	99	61	61	46	45	90	her3.4
45	49	100	86	86	45	47	49	99	100	91	her3.7
60	66	50	47	47	60	79	66	51	50	92	obr.1
43	47	87	99	99	43	46	47	86	87	93	obr.11
44	49	85	95	95	44	48	49	83	85	94	obr.12
63	91	49	45	45	63	66	92	51	49	95	obr.14
60	66	50	47	47	60	79	66	51	50	96	obr.15
43	47	85	99	99	43	46	47	84	85	97	obr.16
44	49	85	80	80	44	48	49	85	85	98	obr.17
44	49	85	80	80	44	48	49	85	85	99	obr.18
44	49	85	80	80	44	48	49	85	85	100	obr.19
43	47	85	98	98	43	46	47	83	85	101	obr.2
43	47	86	99	99	43	46	47	85	86	102	obr.20
44	49	85	80	80	44	48	49	85	85	103	obr.21
60	66	50	47	47	60	79	66	51	50	104	obr.22
61	72	52	48	48	60	71	73	53	52	105	obr.23
42	46	85	97	97	42	45	46	83	85	106	obr.24
43	47	86	100	100	43	46	47	85	86	107	obr.26
-	60	45	43	43	99	61	61	46	45	108	obr.3
	-	49	47	47	60	66	99	50	49	109	obr.4
		-	86	86	45	47	49	99	100	110	vegf.1
			-	100	43	46	47	85	86	111	vegf.10
				-	43	46	47	85	86	112	vegf.2
					-	61	61	46	45	113	vegf.3
						-	66	49	47	114	vegf.4
							-	50	49	115	vegf.5
								-	99	116	vegf.6
									-	117	vegf.8
108	109	110	111	112	113	114	115	116	117		Clone
					VEGF						

Table 6.15